

REMARKS

Applicants have amended certain claims to address the objections in the Office Action. Claims 20 and 58 have been canceled, claims 16, 19, 21, 57, 59, and 63 have been amended, and new claim 65 has been added. Claims 16-19, 21, 51-57, and 59-65, of which claim 16 is the only independent claim, are presented for examination.

The Examiner has rejected claims 16-19, 22, 51-57 and 59-64 under 35 U.S.C. §112, first paragraph, as not providing enablement for other methods claimed. Applicants do not agree, but in any case, the claim amendments herein make this rejection moot. Applicants request that the rejection be withdrawn.

The Examiner has rejected claims 20-21 and 58-62 under 35 U.S.C. §112, second paragraph, as indefinite. Claims 20 and 58 have been cancelled, and claims 21 and 59 have been amended to obviate the rejection. Accordingly, Applicants request withdrawal of this rejection.

The Examiner has rejected claims 16-19 and 53-63 under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-6, 8-10 and 14-18 of U.S. Patent No. 6,589,612. Applicants do not necessarily agree with this rejection, but to obviate the rejection, Applicants may file a terminal disclaimer upon the indication that the claims are otherwise allowable.

Under 35 U.S.C. § 103(a), the Examiner has rejected claims 16, 17, 19-21, 51, 53, 55, and 57- 64 as being unpatentable over U.S. Patent No. 6,203,941 (Reichert) in view of allegedly admitted state of the prior art, Japan 1-159964 (JP '964), and U.S. Patent No. 4,888,206 (Hope); claims 18 and 52 as being unpatentable over Reichert in view of allegedly admitted state of the prior art, JP '964, Hope, and Sono-Tek Technology Review (Sono-Tek); and claim 54 as being unpatentable over Reichert in view of the allegedly admitted state of the prior art, JP '964, Hope, and EP 898316 (EP '316).

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to modify a reference or to combine reference teachings, and there must also be a reasonable expectation of success. MPEP 2143. With regard to the reasonable expectation of

success, absolute predictability is not required, however, at least some degree of predictability is required. MPEP 2143.02.

In the present case, at least the reasonable expectation of success has not been demonstrated. The Examiner has rejected claims under 35 U.S.C. 112, first paragraph, as not enabled because

Applicant has not provided teachings or suggestions as to how the other inventions claimed [other than spraying of an electrolyte/separator material on an inside surface of a battery separator/cathode which has already been placed in a battery can] could be practiced without undue experimentation by one of ordinary skill in the art. For example, it is unclear if the spraying of claim 16 would work if it was not applied to a specific substrate or in the confines of the battery can, without performing undue experimentation by testing all possible surfaces or application methods.

The Examiner, in other words, has acknowledged an unpredictability in this art, which according to the Examiner, requires undue experimentation. But it is this alleged unpredictability that undermines a reasonable expectation of success, and therefore, a *prima facie* case of obviousness over the cited references cannot be established.

Of the references cited by the Examiner, only Hope describes spraying a material using a vibratory nebulizer. Hope, however, describes using a nebulizer to spray only an alkaline or alkaline earth metal, for example molten lithium metal, and then only onto a flat surface of a current collector (see, e.g., col. 1, line 67 – col. 2, line 8). Hope fails to teach or suggest the use of a vibratory nebulizer for the application of an electrolyte, the application of electrolyte to a separator, or the spraying of a material to a surface in a battery container. Given the significant differences between a molten metal and an electrolyte solution, e.g., rheology, surface tension, temperature of operation, and the like, Hope does not indicate that there would be a reasonable expectation of success in utilizing the vibratory nebulizer to spray electrolyte onto a surface contained in a battery container, and given that no other reference utilizes a vibratory nebulizer, such expectation of success cannot be demonstrated from the other references.

Thus, the Examiner's inconsistent positions cannot be maintained. The Examiner cannot, on one hand, assert that it is undue experimentation to spray other unclaimed surfaces or outside

a battery container, and on the other hand, assert that there is a reasonable expectation of success in using a nebulizer to spray an electrolyte solution, when a reference describes spraying only a molten metal with the nebulizer. Indeed, changing materials would require, for example, experimenting with how the material flows in liquid form and how the material behaves as a spray. Therefore, one skilled in the art would recognize, if anything, that it would have required more experimentation to change the material that is to be sprayed than to change, for example, the substrate. There is no indication that the references, even if properly combined, would have a reasonable expectation of success, and the Examiner's own assertions in rejecting certain claims under 35 U.S.C. § 112, first paragraph, support this position. Applicants request that the rejections under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Applicants note that the Examiner has stated that it is her position that undulating shaped cathode surfaces are well known in the battery art and that it is well known when spraying interior surfaces to rotate the surface while spraying to fully cover all areas. Applicants dispute these positions, which appear to be in the nature of official notice, and ask the Examiner to articulate the basis for these positions, so that they can be addressed.

For at least the reasons discussed above, Applicants believe the claims are in condition for allowance, which action is requested.

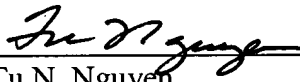
Applicant : George Cintra et al.
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Enclosed are a Petition for Extension of Time and the fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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Tu N. Nguyen
Reg. No. 42,934

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

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